

File RFD

PAR-209, AC-14

Pip L 24 July 64

23 July 1964

MEMORANDUM FOR THE RECORD

SUBJECT: Evaluation of ☐ Variable Contrast Phosphor Viewer

PAR 209

The Variable Contrast Phosphor Viewer, developed in part under PAR 209, has been evaluated by members of PID and myself. Very little enhancement was observed with the instrument.

The film was placed directly on the phosphor and viewed through the box holding the ultra-violet lamps. Enhancement was limited to large areas of low density on the film due to the placement of the UV lamps on the sides of the box. An angle of 45 degrees caused the light to undercut the imagery in small areas of low density and resulted in no appreciable enhancement.

The UV lights did not furnish sufficient illumination when compared with the lowest back lighting. This was improved a little by removing all but one of the fluorescent tubes in the rear but the ratio was still disproportionate.

The evaluation of the Viewer was discussed with ☐ and he agreed that the enhancement obtained is negligible. He thought there is a possibility of finding better phosphors and also increasing the UV lighting. Backlighting can be changed so as to provide for complete extinction.

I recommend that no further work be done ☐ on phosphor viewers until the rear projection screen study by Consolidated Systems is completed and evaluated. At that time a decision can be made as to whether further work should be carried on ☐ or whether a proposal should be solicited from Consolidated.

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Development Branch, P&DS

Declass Review by NGA.